

Abstract of the Disclosure

A solved three-dimensional crystal structure of a glucocorticoid receptor (GR) α ligand binding domain polypeptide is disclosed, in the form of a crystalline glucocorticoid receptor α ligand binding domain polypeptide in complex with the ligand fluticasone propionate (FP) and a peptide derived from the co-activator TIF2. The GR/FP/TIF2 structure includes an expanded binding pocket not seen in other GR structures. Methods of designing steroid and non-steroid modulators of the biological activity of GR and other nuclear receptors (NRs) are also disclosed. In another aspect of the present invention homology models of androgen receptor (AR), progesterone receptor (PR) and mineralcorticoid receptor (MR) are disclosed, as well as methods of forming homology models for other NRs. Methods of forming a soluble GR/FP/TIF2 complex are also disclosed.